Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) The method of claim ~~2~~34, wherein the biomolecules are amine-functionalized or amine-containing biomolecules.

4. (Currently Amended) The method of claim ~~1~~9, wherein the oxide surface comprises a silicon oxide.

5. (Original) The method of claim 4, wherein the oxide surface comprises silica, glass or quartz.

6. (Currently Amended) The method of claim ~~1~~9, wherein the oxide surface comprises a metal oxide.

7. (Original) The method of claim 6, wherein the metal oxide comprises a native oxide of stainless steel.

8. (Currently Amended) The method of claim ~~1~~9, wherein the plasma is formed from a source gas comprising water, oxygen or a mixture thereof.

9. (Previously Presented) A method of treating a surface of a substrate, the method comprising:

(a) forming hydroxyl groups on an oxide surface by exposing the oxide surface to a plasma;

(b) reacting epoxy groups on epihalohydrin molecules with the surface hydroxyl groups *in situ* in the absence of plasma and in the absence of acid and base catalysts to provide a functionalized surface; and

(c) exposing the functionalized surface to vacuum *in situ* to provide epoxy-terminated, surface-bound spacer chains.

10. (Original) The method of claim 9, wherein the epihalohydrin molecules are epichlorohydrin molecules.

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended) The method of claim ~~2~~34, wherein the biomolecule is selected from the group consisting of oligonucleotides, aptamers, cDNA and RNA.

14. (Currently Amended) The method of claim ~~2~~34, wherein the biomolecule is a protein.

15. (Cancelled)

16. (Currently Amended) The method of claim ~~15~~35, wherein the spacer molecules comprise an amine group capable of reacting with the epoxy functionality of the spacer chains.

17-33. (Cancelled)

34. (Previously Presented) The method of claim 9, further comprising immobilizing biomolecules on the oxide surface by reacting the biomolecules with the oxide surface-bound spacer chains.

35. (Previously Presented) The method of claim 9, further comprising extending the spacer chains by reacting the spacer chains with gas-phase spacer molecules *in situ* in the absence of plasma to provide extended spacer chains.